

W E S T   E N D   T R A N S I T W A Y

## **Policy Advisory Group**



**December 18, 2014**

A L E X A N D R I A   A C C E L E R A T E D

# MEETING AGENDA

- 1 Project Schedule
- 2 Project Progress
- 3 Build Alternative Refinement and Concept Design
- 4 Update on Preliminary Evaluation of Alternatives
- 5 Discussion and Next Steps



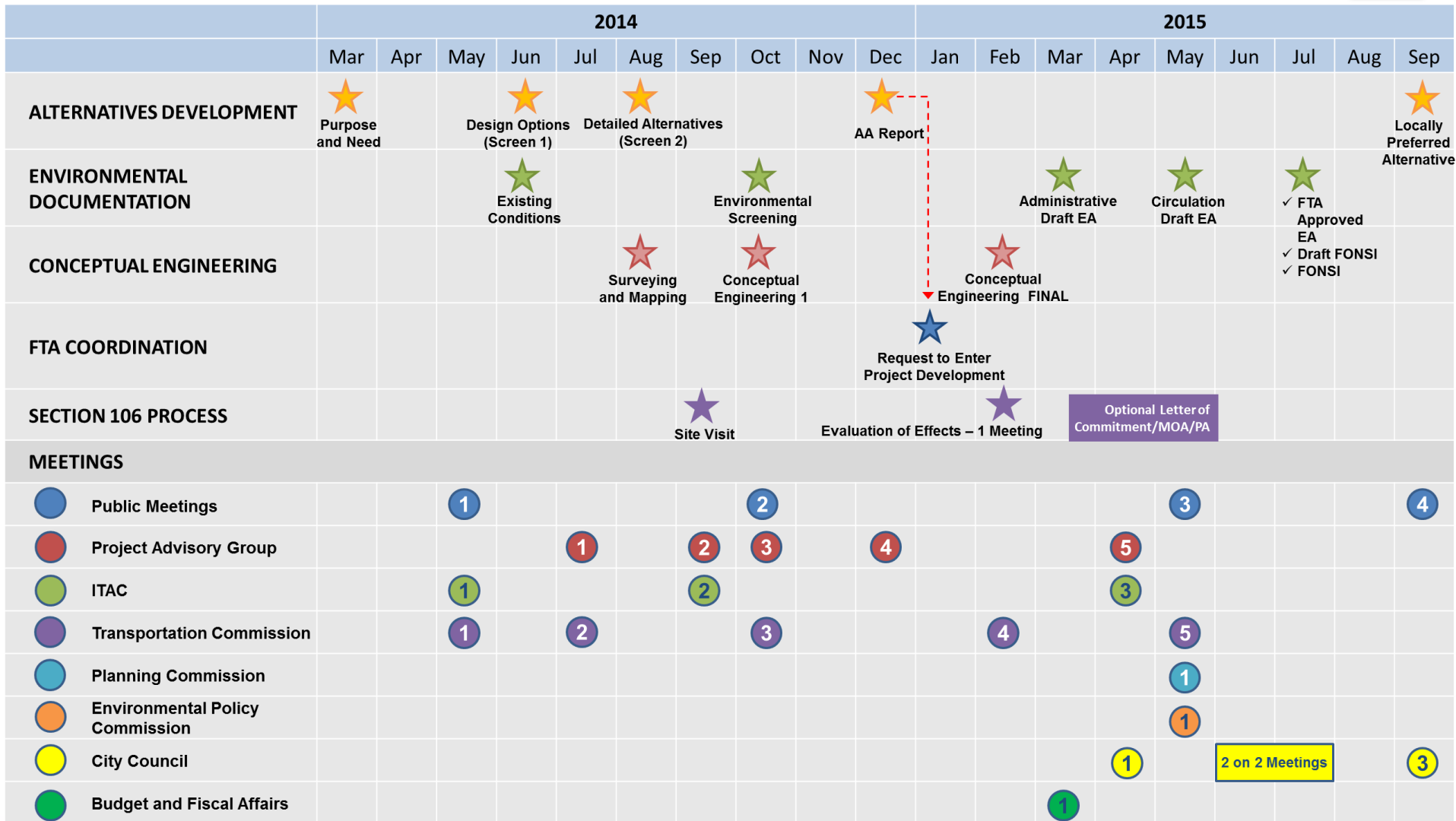
# 1

## PROJECT SCHEDULE



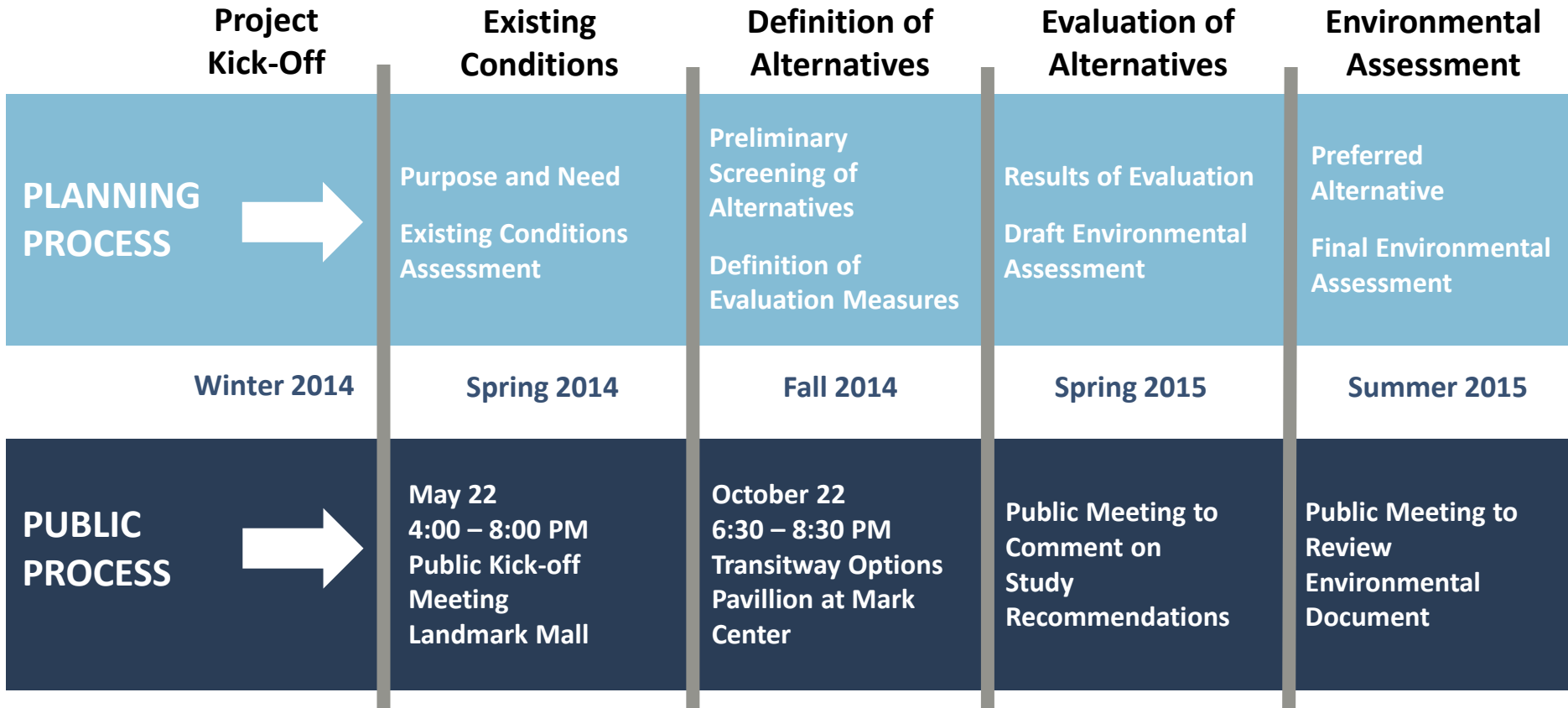
# Technical Schedule

1



# AA and EA | Timeline

1



18 - 24 Months

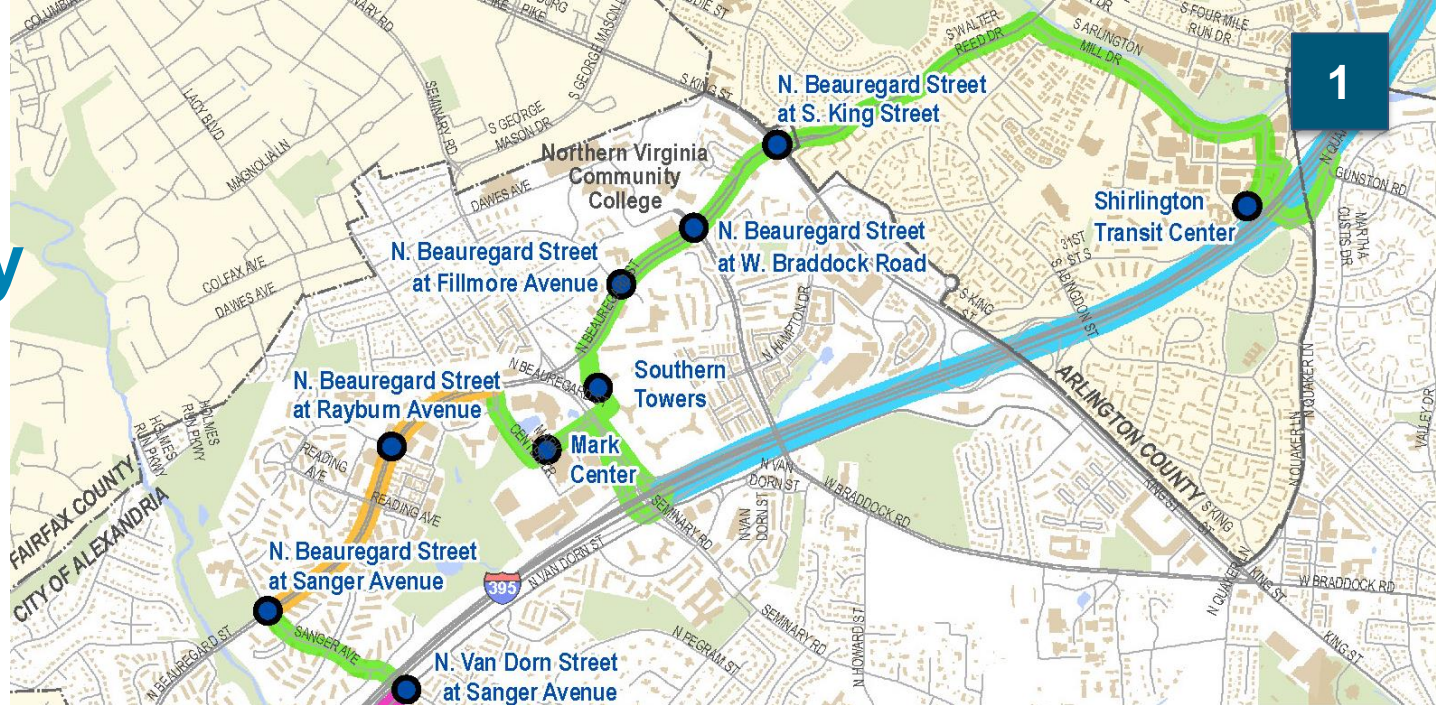
WE  
ARE  
HERE



WEST END TRANSITWAY



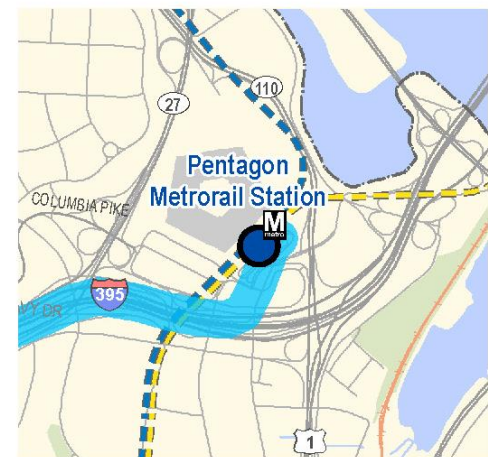
# Build Alternative Runningway



## LEGEND

### West End Transitway

- Planned Station
- Dedicated Transit Lane in One Direction
- Dedicated Transit Lanes in Both Directions
- Transit in Mixed Traffic
- Transit in I-395 HOV Lanes (Peak Period)
- Metrorail Station
- Metrorail Blue Line
- Metrorail Yellow Line



## LEGEND

### West End Transitway

- Planned Station
- Dedicated Transit Lane in One Direction
- Dedicated Transit Lanes in Both Directions



WEST END TRANSITWAY

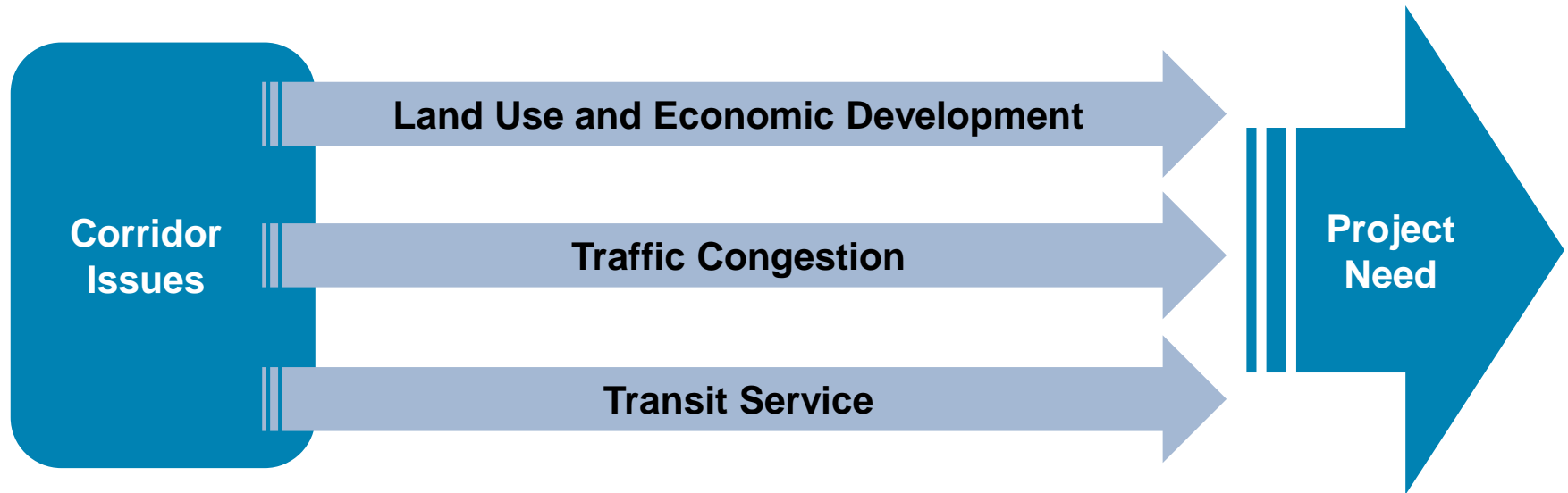
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## PROJECT PROGRESS



# PROJECT NEED

2





- Policy Decision
  - Locally Preferred Alternative selected by City Council
    - Transit Technology
    - Alignment
    - Configuration
    - Project Cost Estimate
- Project Finance Strategy
- Approved Environmental Document
  - Finding by FTA after review by federal and state agencies



# FTA Comments on Environmental Scan

- Noise and Vibration: Conduct typical analysis per FTA 2006 Noise and Vibration Guidance
- Air Quality: The Build Alternative would not rise to the level of a “project of air quality concern”
- Topics for EA focus:
  - Threatened and endangered species: consultation with USFWS for the two ESA species near the Pentagon
  - Section 106 (Cultural Resources): coordination with VDHR
  - Section 4(f): no designated properties in the area
  - Environmental Justice: document benefits to corridor residents



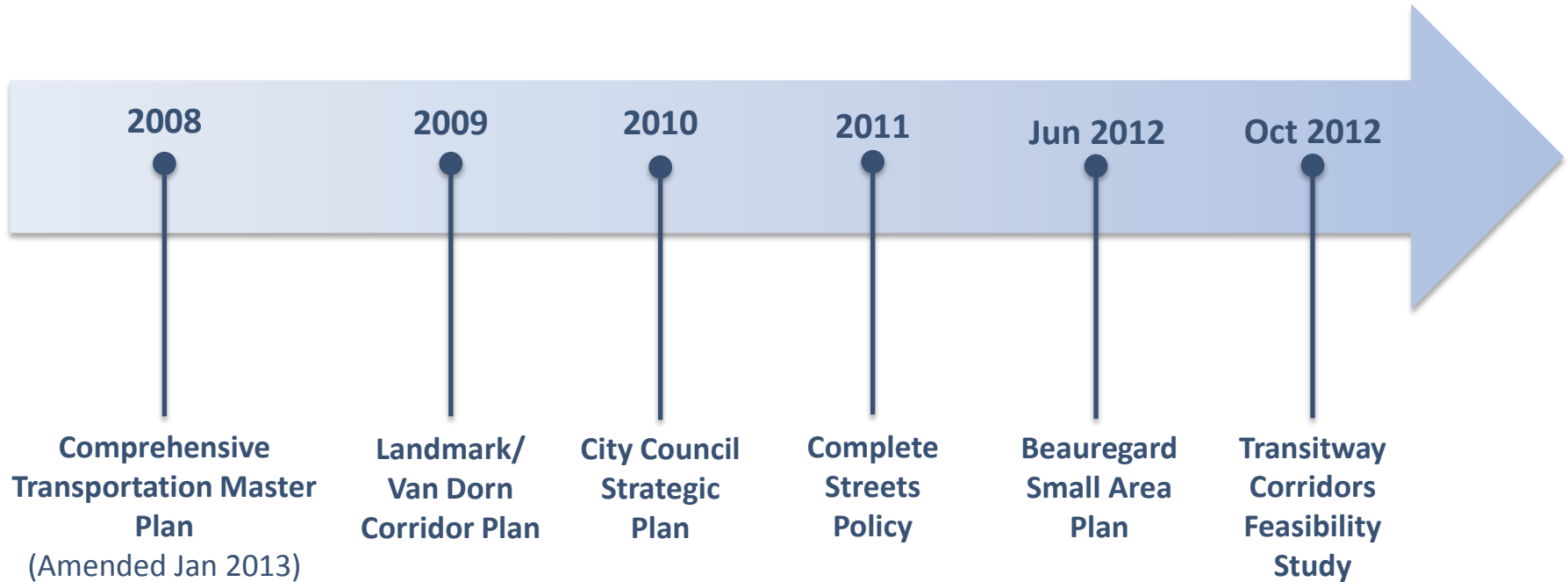
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## **BUILD ALTERNATIVE REFINEMENT AND CONCEPT DESIGN**



# Policy Precedent

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# Feedback Received

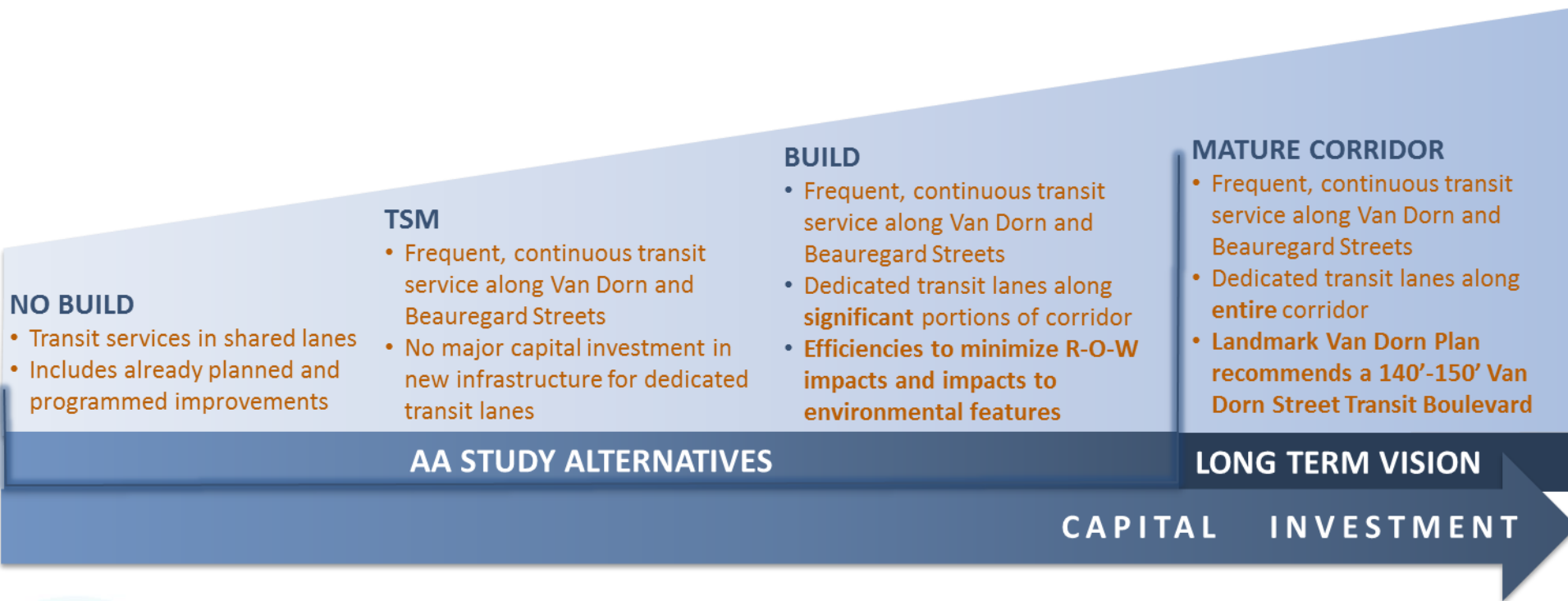
- Improve transit travel time with all-day, frequent service
- Provide bike accommodation that serves people of all ages and abilities
- Minimize ROW impacts to homes and businesses
- Minimize parking impacts
- Concerns about impacts to car traffic
- Concerns about City's ability to spend on this transit project





# Refinements to Build | Key Considerations

- Short-term phased implementation
- Reasonable cost and property impacts
- Support the long-term vision



# PRIORITIES DRIVING DESIGN DECISIONS

## South Van Dorn Street

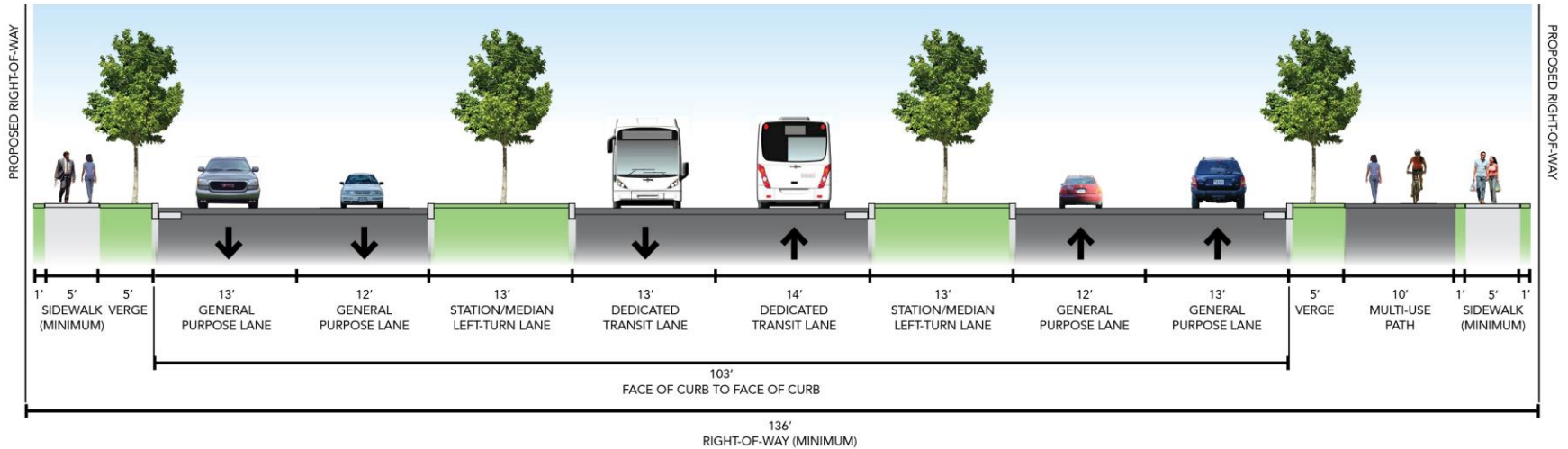
1. Establish the permanent transit runningway
2. Maintain general purpose traffic lanes
3. Maintain continuous sidewalk
4. Minimize property and parking impacts
5. Where roadway reconstruction occurs:
  - a. Construct a multi-use path
  - b. Provide at least one landscape median
  - c. Construct streetscape improvements where right-of-way is available



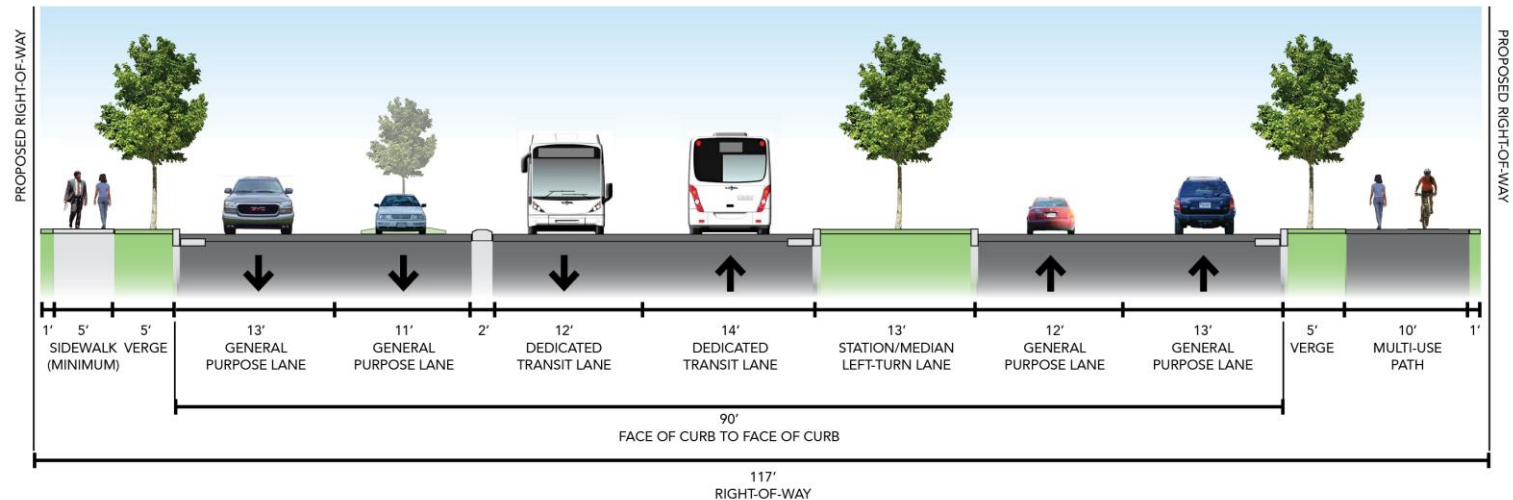
# South Van Dorn Street – Cross Section

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## Long Term Vision

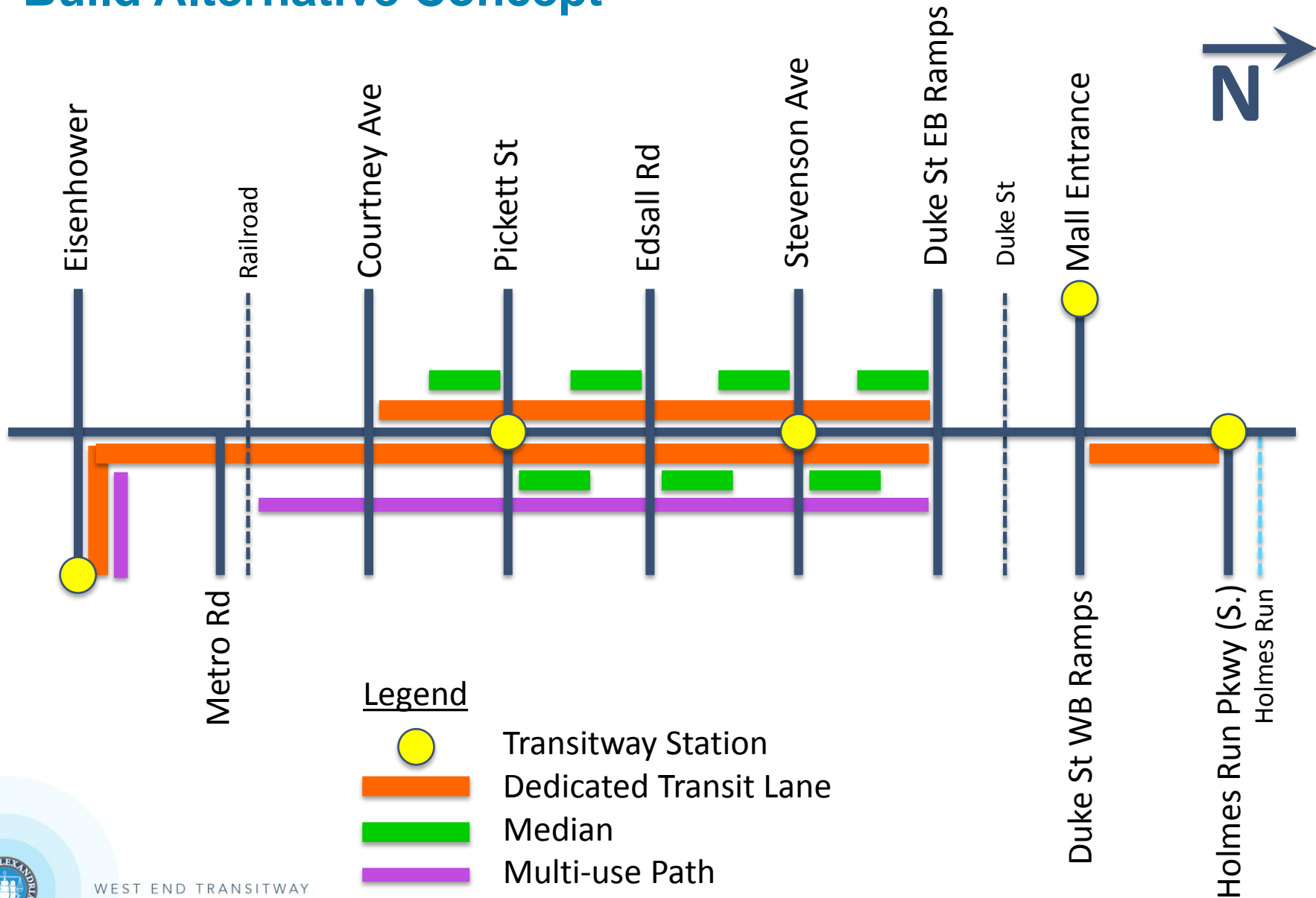


## Build Alternative



# South Van Dorn Street Build Alternative Concept

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WEST END TRANSITWAY



# South Van Dorn Street Preliminary Property Impacts: Build Alternative Concept

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Courtney Ave

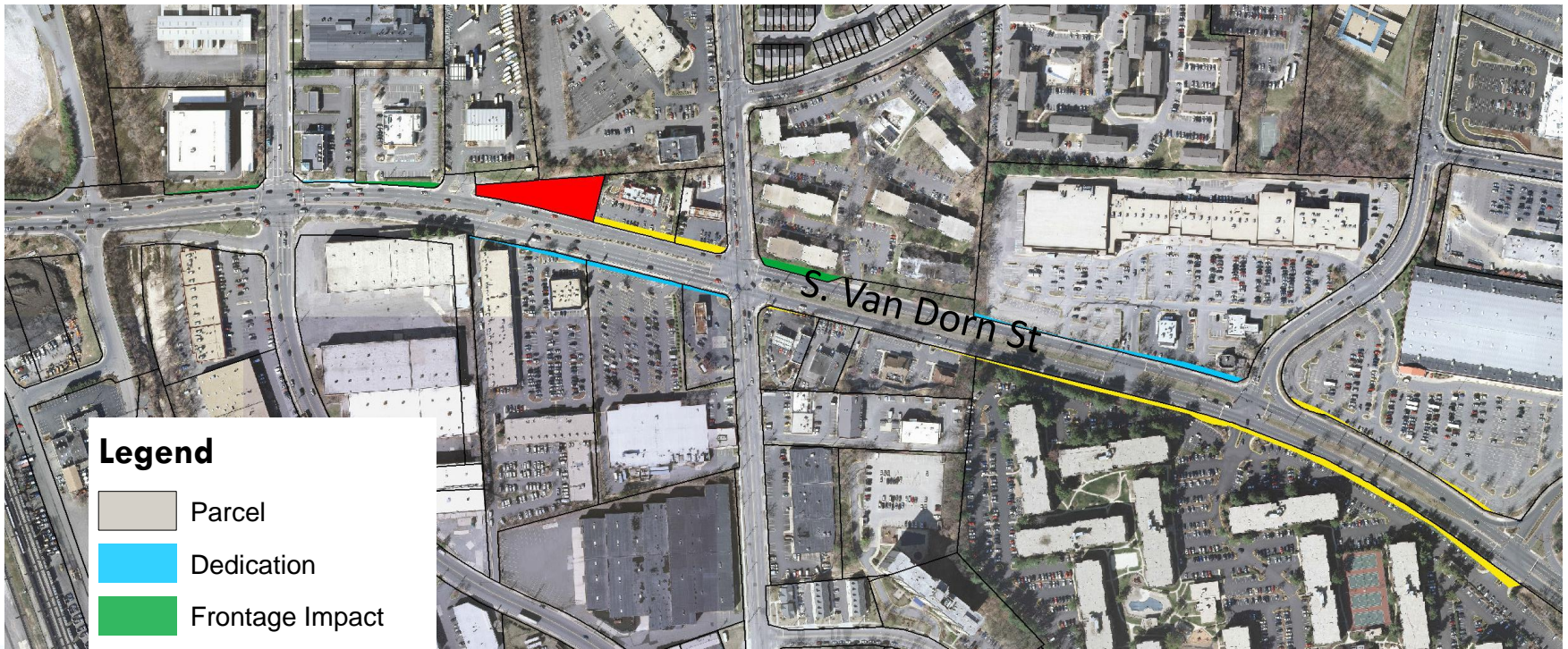
Pickett St

Edsall Rd

Stevenson Ave

Duke St

EB Ramps



## Legend

- Parcel
- Dedication
- Frontage Impact
- Parking Impact
- Potential Acquisition



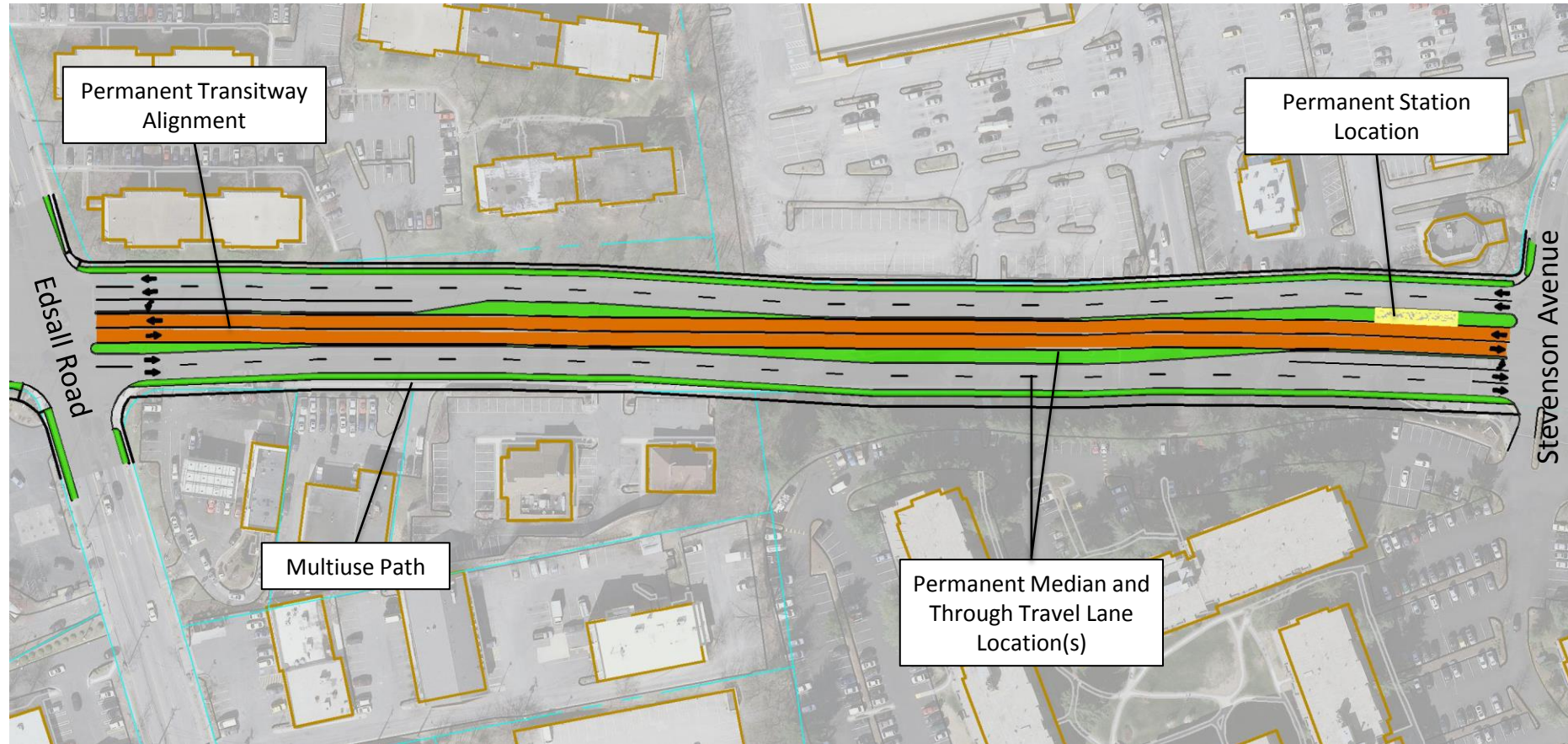
WEST END TRANSITWAY





# South Van Dorn Build Alternative Implementation

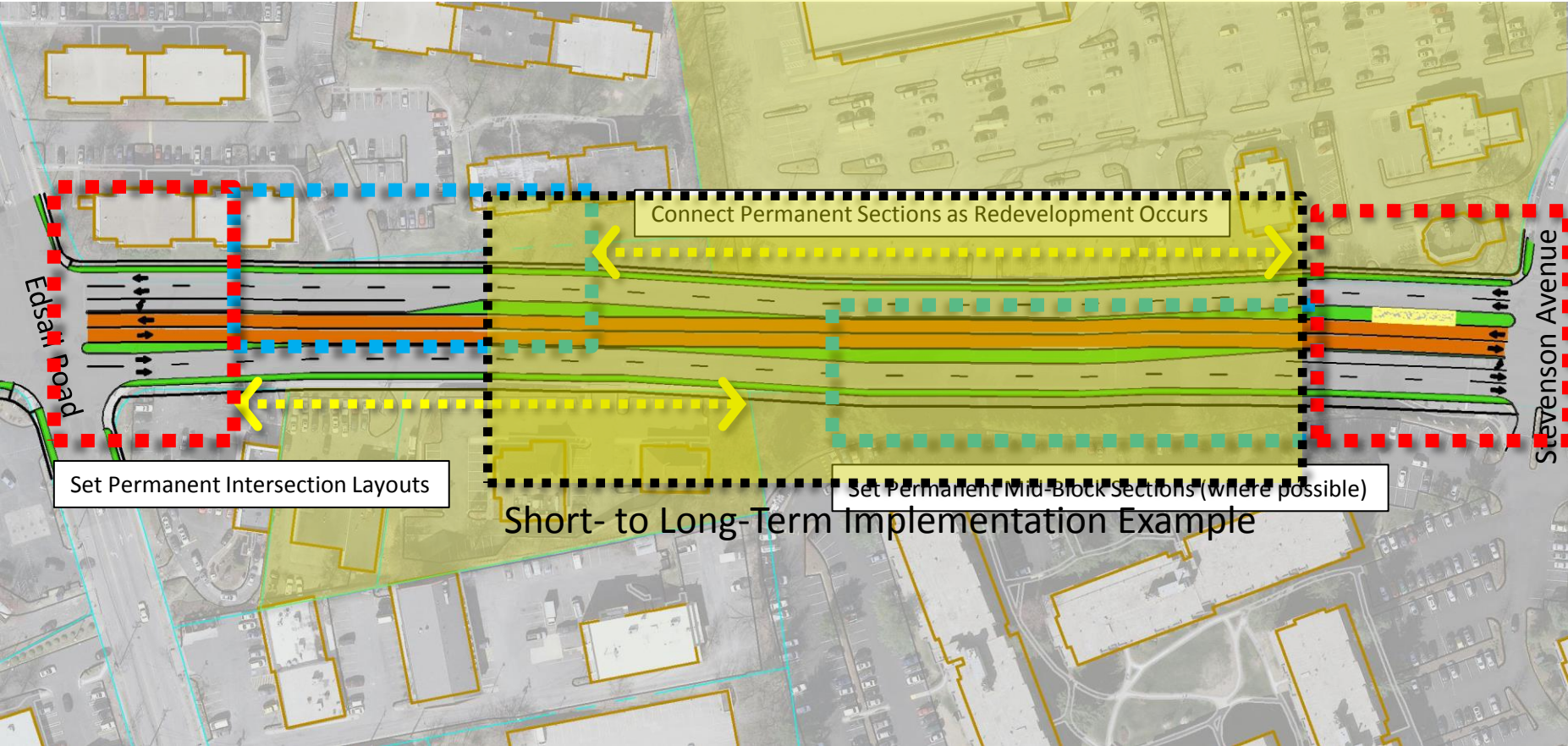
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WEST END TRANSITWAY



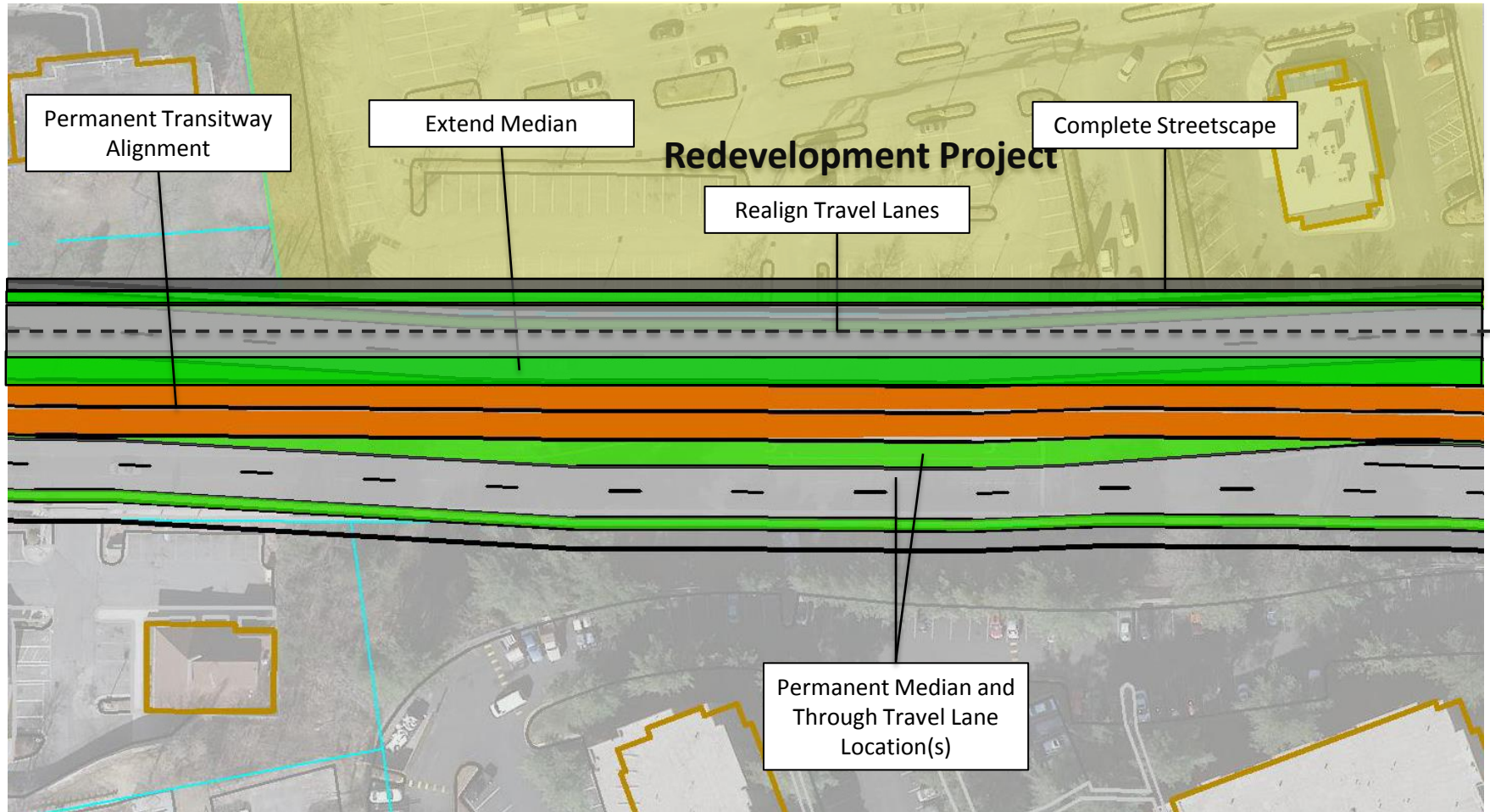
# South Van Dorn Street – Build to Long-Term Schematic





# Transition – Build Alternative to Long Term Vision

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WEST END TRANSITWAY



# VAN DORN STREET AT SANGER AVE

## Priorities Driving Design Decisions

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1. Provide a northbound dedicated transit lane - Only the northbound direction needs dedicated transit based on observed traffic pattern and analysis
2. Minimize parking impacts
3. Maintain continuous sidewalk
4. Maintain general purpose through lanes
5. Construct a multi-use path



# VAN DORN STREET AT SANGER AVE

## Design Options



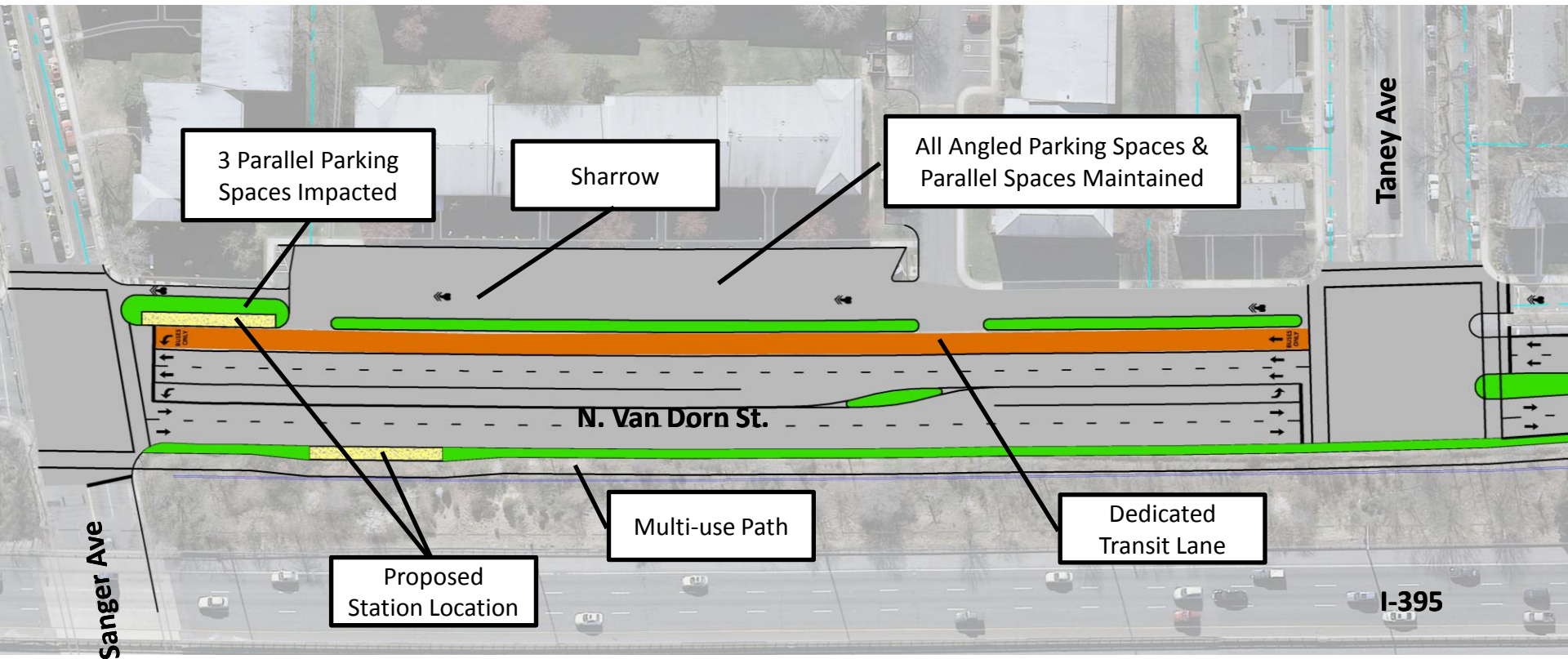
Element	Option 1	Option 2
<b>Transit accommodation</b>	<ul style="list-style-type: none"> <li>Northbound dedicated lane</li> <li>Southbound in mixed flow</li> </ul>	
<b>Bicycle accommodation</b>	<ul style="list-style-type: none"> <li>Southbound bike lane</li> <li>Northbound bike lane</li> </ul>	<ul style="list-style-type: none"> <li>Southbound bike lane or multiuse path</li> <li>Northbound sharrow in access road</li> </ul>
<b>Pedestrian accommodation</b>	<ul style="list-style-type: none"> <li>Sidewalk on both sides</li> </ul>	<ul style="list-style-type: none"> <li>Sidewalk on one or both sides and multiuse path</li> </ul>
<b>Level of roadway reconstruction required</b>	<ul style="list-style-type: none"> <li>Significant, reconstruct access road and parking and road widening</li> </ul>	<ul style="list-style-type: none"> <li>Minimal, widening toward I-395 mostly</li> </ul>
<b>Property impacts</b>	<ul style="list-style-type: none"> <li>Considerable effect on parking/circulation on apartment property</li> </ul>	<ul style="list-style-type: none"> <li>Minimal, minor changes required at Sanger Avenue</li> </ul>
<b>Parking impacts</b>	<ul style="list-style-type: none"> <li>Major impact, 50% space loss (30 spaces)</li> </ul>	<ul style="list-style-type: none"> <li>Minor impact, 3 to 4 space loss</li> </ul>






# VAN DORN STREET AT SANGER AVENUE

## Project Recommended Design Concept

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### Legend

-  Transitway Station
-  Dedicated Transit Lane
-  Median/Landscape Strip



WEST END TRANSITWAY

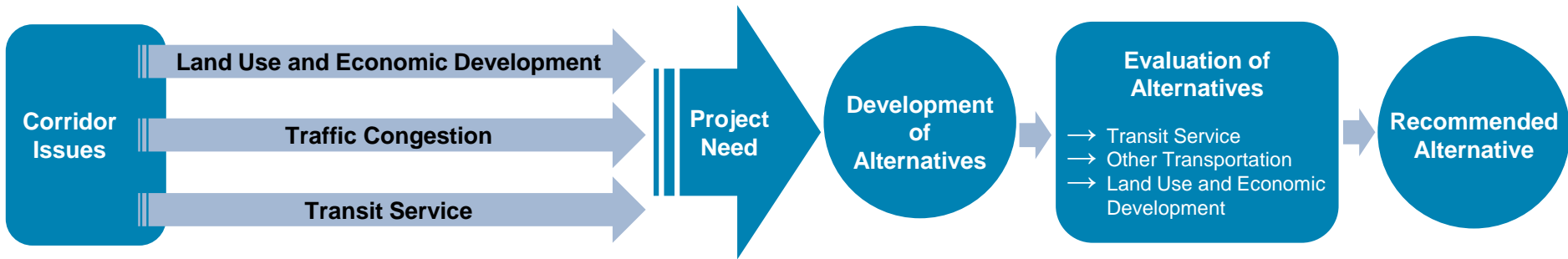
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## **UPDATE ON PRELIMINARY EVALUATION OF ALTERNATIVES**



# Evaluation of Alternatives

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# PRELIMINARY TRANSIT PERFORMANCE

4

		2015			2035		
Measure		No Build	TSM	Build	No Build	TSM	Build
Ridership	DASH + Metrobus	26,400	20,200	20,100	31,900	26,400	26,400
	West End Transitway	--	9,700	11,600	--	12,600	15,200
	Total Corridor	<b>26,400</b>	<b>29,900</b>	<b>31,700</b>	<b>31,900</b>	<b>39,000</b>	<b>41,600</b>
Transit Operations	Average Weekday Travel Time – Van Dorn to Pentagon*	<b>51 minutes</b> (1 transfer)	<b>22 minutes</b> (no transfers)	<b>19 minutes</b> (no transfers)	<b>54 minutes</b> (1 transfer)	<b>24 minutes</b> (no transfers)	<b>19 minutes</b> (no transfers)
	Reliability	Low	Improved	High	Low	Improved	High

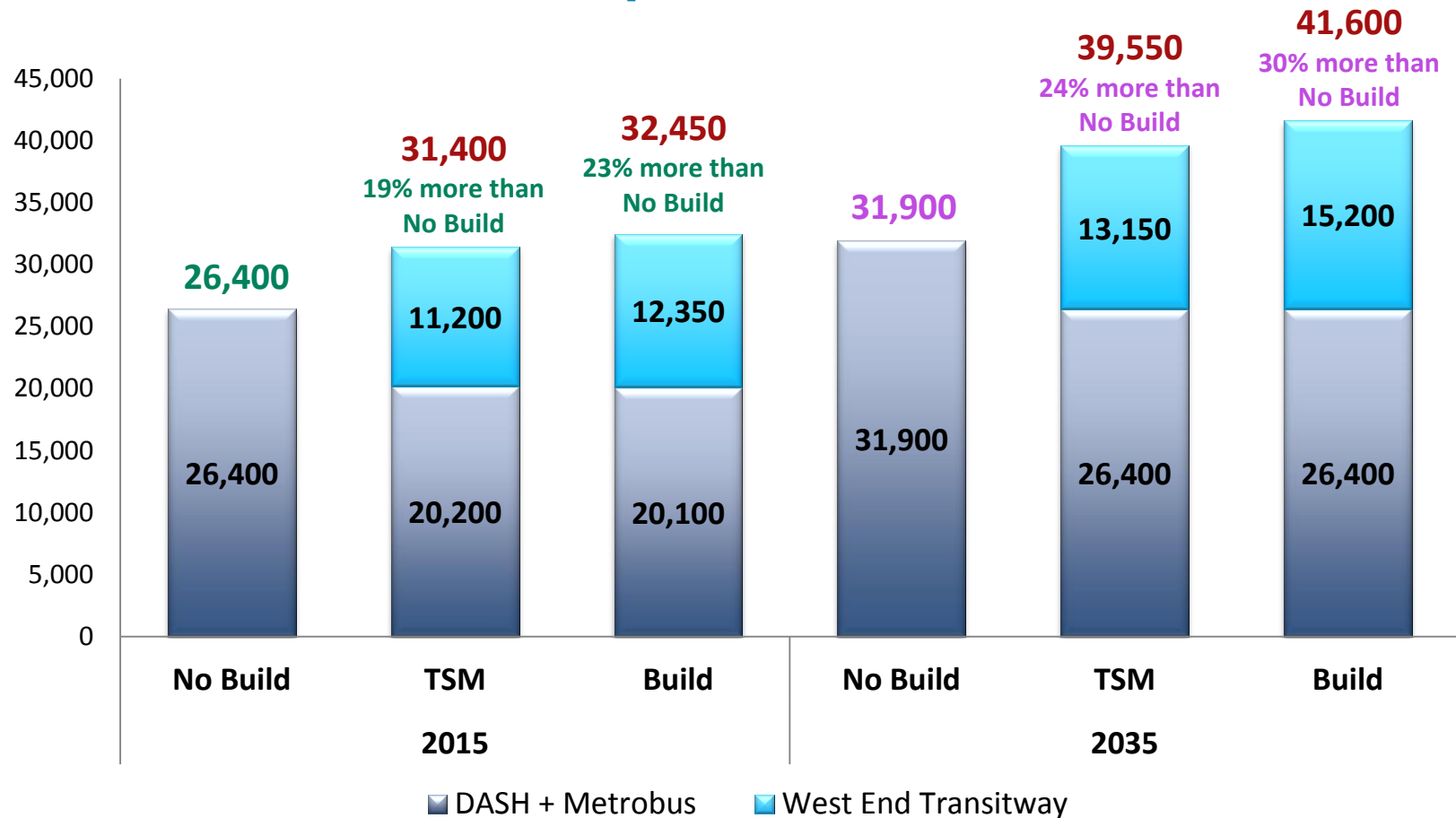
\*AM Average of All WET Routes for TSM and Build; 2015 and 2035 No Build times based on bus travel times between Van Dorn Metro Station and Pentagon



# PRELIMINARY TRANSIT PERFORMANCE

4

## 2015 and 2035 Ridership











# PRELIMINARY TRANSIT PERFORMANCE

4

## 2015 and 2035 Transit Travel Time

	2015			2035		
Measure	No Build	TSM	Build	No Build	TSM	Build
Average Weekday Travel Time – Van Dorn to Pentagon*	 <b>51 minutes</b> (1 transfer)	 <b>22 minutes</b> (no transfers)	 <b>19 minutes</b> (no transfers)	 <b>54 minutes</b> (1 transfer)	 <b>24 minutes</b> (no transfers)	 <b>19 minutes</b> (no transfers)

*\*AM Average of All WET Routes for TSM and Build; 2015 and 2035 No Build times based on bus travel times between Van Dorn Metro Station and Pentagon*



# PRELIMINARY TRANSPORTATION PERFORMANCE (OTHER MODES)

4

		2015			2035		
Measure		No Build	TSM	Build	No Build	TSM	Build
Traffic Operations	Average Vehicular Travel Time*	16 minutes	16 minutes	17 minutes	16 minutes	17 minutes	18 minutes
Bicycle and Pedestrian	New/Improved Sidewalks	None	None	None	None	Enhanced pedestrian crossings at intersections	Shared use bicycle/ pedestrian path, widened sidewalks, and streetscape improvements
	New/Improved Bicycle Facilities					None	
Capacity	Corridor person throughput **	2,350 persons per peak hour	2,610 persons per peak hour	2,840 persons per peak hour	2,610 persons per peak hour	2,720 persons per peak hour	2,940 persons per peak hour

\* AM peak hour northbound Van Dorn to Shirlington

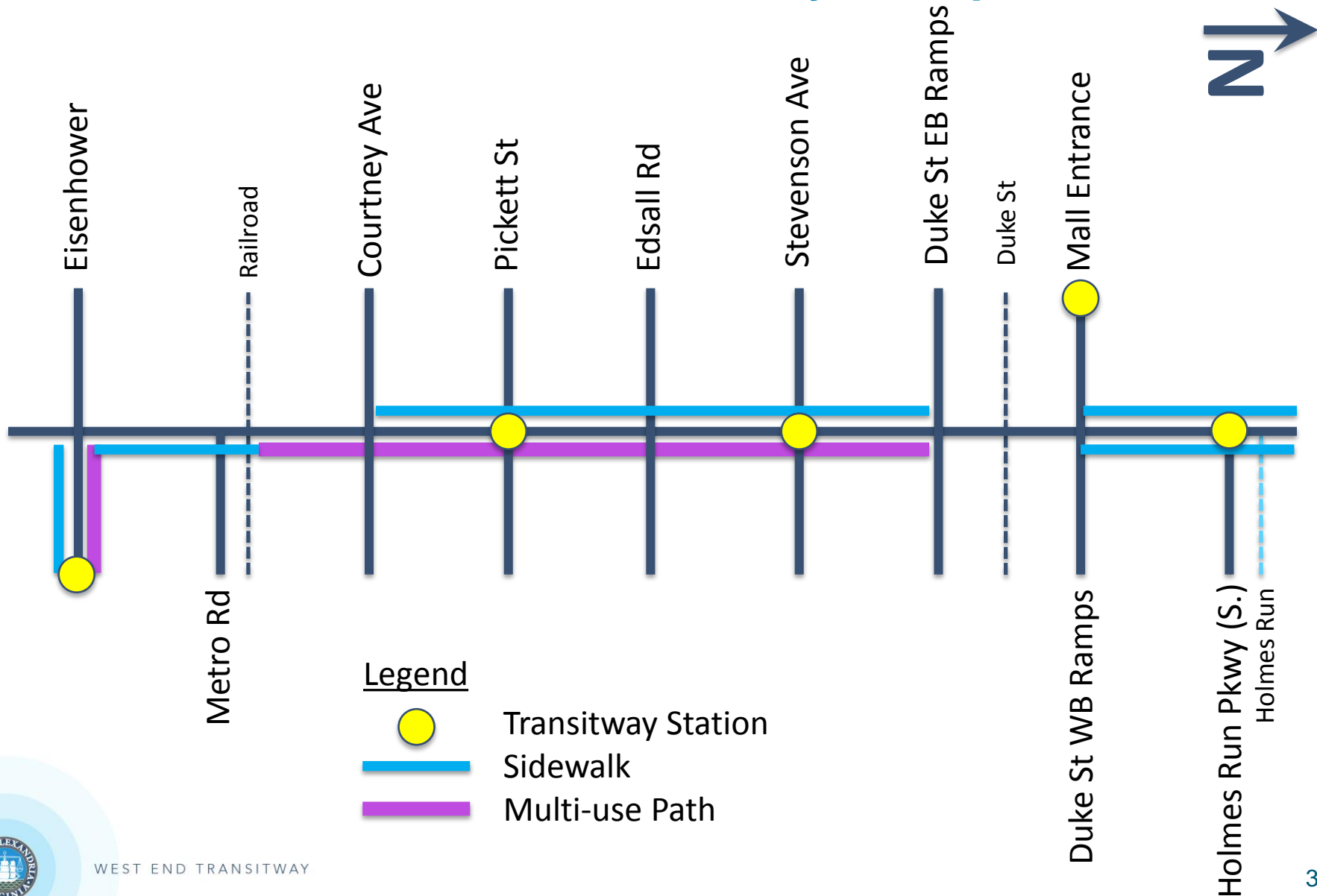
\*\* On Beauregard between Sanger and Mark Center



# PRELIMINARY TRANSPORTATION PERFORMANCE

## Build Alternative Pedestrian and Bicycle Improvements

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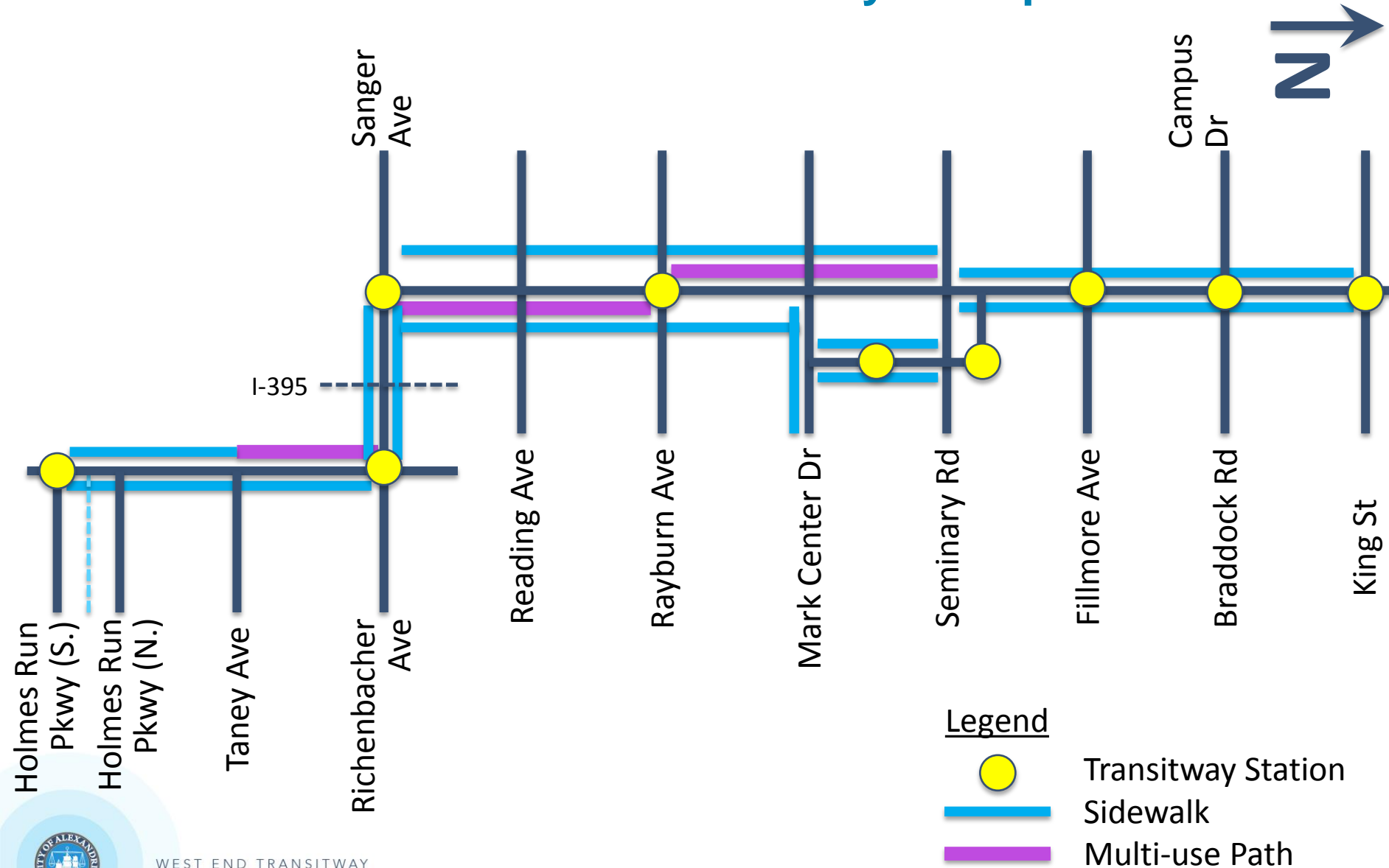


WEST END TRANSITWAY

# PRELIMINARY TRANSPORTATION PERFORMANCE

## Build Alternative Pedestrian and Bicycle Improvements



















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WEST END TRANSITWAY

# PRELIMINARY LAND USE AND ECONOMIC DEVELOPMENT CONSIDERATIONS

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		2015			2035		
Measure		No Build	TSM	Build	No Build	TSM	Build
Land Use	Supports planned development	 --	 --	 --	 Marginal	 Moderate	 Strong
	Ratio of Jobs to Dwelling Units *	 0.72	 0.72	 0.72	 0.84	 0.84	 0.99
Economic Benefit	Level of new development permitted	--	--	--	 13.5M Square Feet	 13.9M Square Feet	 21.1M Square Feet
	Potential to increase pace of retail development**	--	--	--	 --	 \$2.4M	 \$4.9M

Note: Based on assumptions of the Development Potential Memo

\* A ratio of 1.0 indicates a balanced development pattern

\*\*Value of additional retail development projected.

Rating Legend:

Marginally Supports  
Purpose and Need



Fully Supports  
Purpose and Need

Fully Supports  
Purpose and Need



WEST END TRANSITWAY

# PRELIMINARY PHYSICAL ENVIRONMENT EVALUATION

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Measure	Description	No Build	TSM	Build
Property Impacts	Additional Right-of-way Required	None	Minimal	2.7 acres
	Potential Property Acquisition	None	None	1 property
Parking Consideration	Commercial Parking Spaces Impacted	None	None	72 spaces
	Residential Parking Spaces Impacted	None	None	3 spaces
	On-street Parking Spaces Impacted	None	None	None



# 5

## DISCUSSION AND NEXT STEPS





# DISCUSSION AND NEXT STEPS

- Winter 2014/15
  - Alternatives Analysis Report
  - Request to Enter FTA Project Development
- Spring/Summer 2015
  - Environmental Documentation
  - Conceptual Engineering
  - Refined Cost Estimation
  - Financial Planning

[www.alexandriava.gov/WestEndTransitway](http://www.alexandriava.gov/WestEndTransitway)





*Happy Holidays!*



WEST END TRANSITWAY

# PROJECT IMPLEMENTATION SCHEDULE

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	2014	2015	2016	2017	2018	2019	2020
AA and EA Process							
Preliminary Engineering and Project Delivery Approach							
Detailed Engineering							
Construction							

